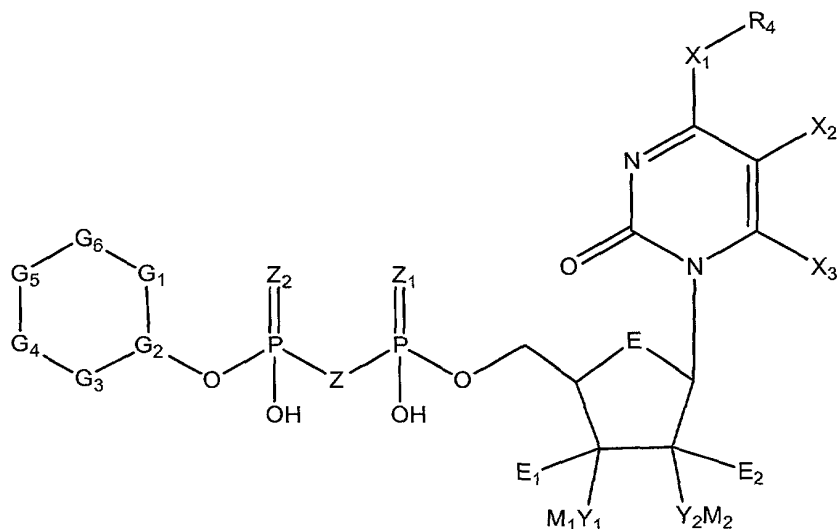


WHAT IS CLAIMED:

1. A method of reducing intraocular pressure comprising administering to a subject a pharmaceutical composition comprising an effective amount of a compound of Formula I, its diastereomers, enantiomers, tautomers, or pharmaceutically acceptable salts thereof:



wherein:

- 10 $X_1 = O, NR, S, CF_2, CF_3$ or CN with the proviso that when $X_1 = CF_3$ or CN , then R_4 is absent; or
 X_1 represents a bond from the pyrimidine ring to R_4 ;
 $X_2 = H, F, Cl, Br, I, CN, OR_8, SR_8, NR_9R_{13}, CF_3, alkyl, cycloalkyl, arylalkyl, aryl, arylalkenyl, arylalkynyl, C(O)R_{16}, C(O)OR_{17}, C(O)NR_{16}R_{18}$ or heterocycle of 5 to 7 members;
- 15 $X_3 = H, CN, OR_{19}, SR_{19}, NR_{23}R_{28}, CF_3, alkyl, cycloalkyl, C(O)R_{32}, C(O)OR_{33}, C(O)NR_{34}R_{35}, arylalkyl, aryl, arylalkenyl, arylalkynyl, or a heterocycle of 5 to 7 members$;
 $R = H, OR_1, alkyl, cycloalkyl, arylalkyl, aryl, C(O)R_2, C(O)OR_3$ or $C(O)NR_1R_2$;
 $R_1, R_7, R_{10}, R_{22}, R_{24}, R_{27}, R_{31}, R_{33}$ and R_{35} are each independently $H, alkyl, cycloalkyl, arylalkyl$ or $aryl$;
- 20 $R_2 = H, alkyl, cycloalkyl, arylalkyl, aryl$ or heterocyclic ring of 5 to 7 members; or
 R_1 and R_2 taken together can form a heterocyclic ring of 5 to 7 members;

R₃, R₆, R₈, R₁₂, R₁₅, R₁₇, R₂₁, R₂₆ and R₃₀ are independently alkyl, cycloalkyl, arylalkyl or aryl;

R₄ = H, alkyl, cycloalkyl, arylalkyl, aryl, heterocyclic ring of 5 to 7 members, C(O)R₅, C(O)OR₆ or C(O)NR₅R₇;

- 5 R₅, R₁₁, R₁₄, R₁₆, R₁₈, R₂₀, R₂₅, R₂₉, R₃₂ and R₃₄ are independently H, alkyl, cycloalkyl, arylalkyl, aryl or heterocyclic ring of 5 to 7 members;

R₉ = H, OR₁₀, alkyl, cycloalkyl, arylalkyl, aryl, C(O)R₁₁, C(O)OR₁₂ or C(O)NR₁₀R₁₁;

R₁₃ = H, alkyl, cycloalkyl, arylalkyl, aryl, C(O)R₁₄ or C(O)OR₁₅;

R₁₉ = alkyl, cycloalkyl, arylalkyl, or aryl, C(O)R₂₀, C(O)OR₂₁ or C(O)NR₂₀R₂₂;

- 10 R₂₃ = H, OR₂₄, alkyl, cycloalkyl, arylalkyl, aryl, C(O)R₂₅, C(O)OR₂₆ or C(O)NR₂₅R₂₇;

where R₂₆ and R₂₉ taken together can form a heterocyclic ring of 6 or 7 members;

or R₂ and R₄, R₂ and R₅, R₁₀ and R₁₁, R₉ and R₁₃, R₁₀ and R₁₃, R₉ and R₁₄, R₁₁ and R₁₄, R₉ and R₁₅, R₁₁ and R₁₅, R₁₆ and R₁₈, R₂₀ and R₂₂, R₂₅ and R₂₇, R₂₃ and R₂₈, R₂₄ and R₂₈, R₂₅ and R₂₈, R₂₅ and R₂₉, R₂₉ and R₃₁ or R₃₄ and R₃₅ are optionally taken together to form a

- 15 heterocyclic ring of 5 to 7 members;

E = O or CH₂;

E₁ and E₂ independently are H or F; or

E₁ and E₂, when taken together, form a carbon-carbon bond;

Y₁ = O or F, with the proviso that when Y₁ = F, then M₁ is absent; or

- 20 Y₁ represents a bond from the point of ring attachment to M₁;

Y₂ = O or F, with the proviso that when Y₂ = F, then M₂ is absent; or

Y₂ represents a bond from the point of ring attachment to M₂;

M₁ and M₂ are independently H, alkyl, cycloalkyl, arylalkyl, aryl, C(O)M₃, C(O)OM₄, or C(O)NM₃M₅;

- 25 M₃ = H, alkyl, cycloalkyl, arylalkyl, aryl or heterocyclic ring of 5 to 7 members;

M₄ = alkyl, cycloalkyl, arylalkyl or aryl;

M₅ = H, alkyl, cycloalkyl, arylalkyl, or aryl; or

M₃ and M₅ taken together form a heterocyclic ring of 5 to 7 members;

when Y₁ = Y₂ = O, M₁ and M₂ optionally are bonds from the oxygen atoms of Y₁ and Y₂,

- 30 respectively, to a carbon atom of an acetal-, ketal- or orthoester group E₃;

wherein E₃ is Q(A₁)(A₂);

wherein Q is a carbon atom;

A₁ = H, CF₃, alkyl, cycloalkyl, arylalkyl or aryl;

$A_2 = \text{H, OA}_3, \text{CF}_3, \text{alkyl, cycloalkyl, arylalkyl, aryl or heterocycle of 5 to 7 members;}$

$A_3 = \text{alkyl, cycloalkyl, arylalkyl or aryl; or}$

where A_1 and A_2 , when taken together, form a carbocyclic ring of 5 or 6 members, with or without unsaturation, and with or without substitution; or

- 5 $\text{M}_1\text{Q}(\text{A}_1)(\text{A}_2)\text{M}_2$ is taken together to form a carbonyl bonded to Y_1 and Y_2 , such that a cyclic carbonate is formed;

$\text{Z} = \text{O, NZ}_3, \text{CH}_2, \text{CHF, CF}_2, \text{CCl}_2, \text{ or CHCl;}$

Z_1 and Z_2 are independently O or S;

$\text{Z}_3 = \text{H, alkyl, cycloalkyl, arylalkyl, aryl or a heterocyclic ring of 5 to 7 members;}$

- 10 $\text{G}_1 = \text{O, S, CH}_2 \text{ or CH(OJ}_1\text{);}$

$\text{G}_2 = \text{CH, C(CH}_2\text{OJ}_3\text{), CCH}_3, \text{CCF}_3, \text{ or C(CO}_2\text{J}_4\text{);}$

$\text{G}_3 = \text{CH}_2, \text{CHF, CF}_2, \text{CH(OJ}_5\text{) or CH(NJ}_6\text{J}_7\text{);}$

$\text{G}_4 = \text{CH}_2, \text{CHF, CF}_2, \text{CH(OJ}_9\text{), or CH(NJ}_{11}\text{J}_{13}\text{);}$

$\text{G}_5 = \text{CH}_2, \text{CHF, CF}_2, \text{CH(OJ}_{15}\text{), or CH(NJ}_{16}\text{J}_{17}\text{);}$

- 15 $\text{G}_6 = \text{CH}_2, \text{CH(CH}_3\text{), CH(CHF}_2\text{), CH(CF}_3\text{), CH(OJ}_{19}\text{), CH(CH}_2\text{OJ}_{19}\text{), CH(CH}_2\text{(NJ}_{21}\text{J}_{23}\text{))}, \text{ or CH(CO}_2\text{J}_{22}\text{), with the provision that when } \text{G}_1 = \text{O or S, then } \text{G}_6 \text{ does not equal CH(OH); and the number of hydrogen atoms bonded to the } \text{G}_1\text{-G}_6 \text{ ring atoms is limited to a maximum of 8; also with the provision that the number of nitrogen atoms bonded to the } \text{G}_1\text{-G}_6 \text{ ring atoms in Formula I is limited to a maximum of 2;}$

- 20 $\text{J}_1 = \text{H, alkyl, cycloalkyl, arylalkyl, aryl, or C(O)J}_2\text{;}$

$\text{J}_2, \text{J}_6, \text{J}_8, \text{J}_{10}, \text{J}_{11}, \text{J}_{14}, \text{J}_{16}, \text{J}_{18}, \text{J}_{20}, \text{J}_{22}, \text{ and J}_{24} \text{ are independently H, alkyl, cycloalkyl, arylalkyl, aryl or heterocyclic ring of 5 to 7 members;}$

$\text{J}_3 = \text{alkyl, cycloalkyl, arylalkyl, aryl or C(O)J}_2\text{;}$

$\text{J}_4 = \text{alkyl, cycloalkyl, arylalkyl, aryl or heterocyclic ring of 5 to 7 members;}$

- 25 $\text{J}_5 = \text{H, alkyl, cycloalkyl, arylalkyl, aryl, or C(O)J}_6\text{;}$

$\text{J}_7 = \text{H, alkyl, cycloalkyl, arylalkyl, aryl or C(O)J}_8\text{;}$

$\text{J}_9 = \text{H, alkyl, cycloalkyl, arylalkyl, aryl, C(O)J}_{10}, \text{CH(CH}_3\text{)(CO}_2\text{J}_{11}\text{), or CH(CH}_3\text{)(C(O)NJ}_{11}\text{J}_{12}\text{);}$

- 30 $\text{J}_{12} = \text{H, alkyl, cycloalkyl, arylalkyl, aryl, heterocyclic ring of 5 to 7 members, an amino acid radical of 2 to 12 carbon atoms with or without hetero atoms, or a peptide radical comprising 2 to 10 amino acid units;}$

$\text{J}_{13} = \text{H, alkyl, cycloalkyl, arylalkyl, aryl or C(O)J}_{14}\text{;}$

$\text{J}_{15} = \text{H, alkyl, cycloalkyl, arylalkyl, aryl or C(O)J}_{16}\text{;}$

$J_{17} = \text{H, alkyl, cycloalkyl, arylalkyl, aryl or } \text{C}(\text{O})J_{18};$

$J_{19} = \text{H, alkyl, cycloalkyl, arylalkyl, aryl or } \text{C}(\text{O})J_{20};$

$J_{21} = \text{H, alkyl, cycloalkyl, arylalkyl, aryl, } \text{C}(\text{O})J_{22} \text{ or heterocyclic ring of 5 to 7 members;}$

$J_{23} = \text{H, alkyl, cycloalkyl, arylalkyl, aryl or } \text{C}(\text{O})J_{24}; \text{ or}$

- 5 $J_6 \text{ and } J_7, J_{11} \text{ and } J_{12}, J_{11} \text{ and } J_{13}, J_{16} \text{ and } J_{17} \text{ or } J_{21} \text{ and } J_{23} \text{ are optionally taken together to form a heterocyclic ring of 5 to 7 members; or}$

where J_{22} and J_{24} , when taken together, form a heterocyclic ring of 5 to 7 members or a bicyclic imide comprising 4 to 12 carbons, with or without unsaturation and/or with or without substitution; or

- 10 when $G_1 = \text{CH}(\text{O}J_1)$ and $G_2 = \text{C}(\text{CH}_2\text{O}J_3)$, J_1 and J_3 optionally are bonds from the oxygen atoms of G_1 and G_2 , respectively, to a carbon atom of an acetal-, ketal- or orthoester group G_7 ; wherein

$G_7 = Q_1(T_1)(T_2); \text{ or}$

- 15 when $G_2 = \text{C}(\text{CH}_2\text{O}J_3)$ and $G_3 = \text{CH}(\text{O}J_5)$, J_3 and J_5 optionally are bonds from the oxygen atoms of G_2 and G_3 , respectively, to a carbon atom of an acetal-, ketal- or orthoester group G_8 ; wherein

$G_8 = Q_1(T_1)(T_2); \text{ or}$

- 20 when $G_3 = \text{CH}(\text{O}J_5)$ and $G_4 = \text{C}(\text{CHO}J_9)$, J_5 and J_9 optionally are bonds from the oxygen atoms of G_3 and G_4 , respectively, to a carbon atom of an acetal-, ketal- or orthoester group G_9 ; wherein

$G_9 = Q_1(T_1)(T_2); \text{ or}$

- when $G_4 = \text{C}(\text{CHO}J_9)$ and $G_5 = \text{CH}(\text{O}J_{15})$, J_9 and J_{15} optionally are bonds from the oxygen atoms of G_4 and G_5 , respectively, to a carbon atom of an acetal-, ketal- or orthoester group G_{10} ; wherein

- 25 $G_{10} = Q_1(T_1)(T_2); \text{ or}$

when $G_5 = \text{C}(\text{CHO}J_{15})$ and $G_6 = \text{CHCH}_2(\text{O}J_{19})$, J_{15} and J_{19} optionally are bonds from the oxygen atoms of G_5 and G_6 , respectively, to a carbon atom of an acetal-, ketal- or orthoester group G_{11} ;

wherein $G_{11} = Q_1(T_1)(T_2); \text{ or}$

- 30 when $G_1 = \text{CH}(\text{O}J_1)$ and $G_6 = \text{CH}(\text{CH}_2\text{O}J_{19}) \text{ or } \text{CH}(\text{O}J_{19})$, J_1 and J_{19} are optionally bonds from the oxygen atoms of G_1 and G_6 , respectively, to a carbon atom of an acetal-, ketal- or orthoester group G_{12} ;

wherein $G_{12} = Q_1(T_1)(T_2);$

wherein Q_1 is a carbon atom; and

$T_1 = H, CF_3, \text{alkyl, cycloalkyl, arylalkyl or aryl;}$

$T_2 = H, OT_3, CF_3, \text{alkyl, cycloalkyl, arylalkyl, aryl or heterocycle of 5 to 7 members;}$

$T_3 = \text{alkyl, cycloalkyl, arylalkyl or aryl; or}$

- 5 T_1 and T_2 , when taken together, form a carbocyclic ring of 5 or 6 members, with or without unsaturation and with or without substitution; or
 $Q_1(T_1)(T_2)$ is taken together to form a carbonyl, such that a cyclic carbonate is formed.

2. The method according to Claim 1, wherein:

- 10 $X_1 = O, NR, S; \text{ or}$

X_1 represents a bond from the pyrimidine ring to R_4 ;

$X_2 = H, F, Cl, Br, I, CF_3, \text{alkyl, cycloalkyl, arylalkyl, aryl, arylalkenyl, arylalkynyl,}$

$C(O)OR_{17}, C(O)NR_{16}R_{18}$ or heterocycle of 5 to 7 members;

$X_3 = H, CN, C(O)OR_{33};$

- 15 $R = H, \text{alkyl, cycloalkyl, arylalkyl, aryl;}$

$Y_1 = O; \text{ or}$

Y_1 represents a bond from the point of ring attachment to M_1 ;

$Y_2 = O; \text{ or}$

Y_2 represents a bond from the point of ring attachment to M_2 ;

- 20 $M_3 = \text{alkyl, cycloalkyl, arylalkyl, or aryl;}$

$M_4 = \text{alkyl, cycloalkyl, arylalkyl or aryl;}$

$A_1 = H, \text{alkyl, cycloalkyl, arylalkyl or aryl;}$

$A_2 = H, \text{alkyl, cycloalkyl, arylalkyl, aryl or heterocycle of 5 to 7 members; or}$

where A_1 and A_2 , when taken together, form a carbocyclic ring of 5 or 6 members, with or

- 25 without unsaturation, and with or without substitution; or

$M_1Q(A_1)(A_2)M_2$ is taken together to form a carbonyl bonded to Y_1 and Y_2 , such that a cyclic carbonate is formed;

$Z = O, CH_2, CF_2, \text{ or } CCl_2;$

$G_2 = CH, C(CH_2OJ_3), \text{ or } C(CO_2J_4);$

- 30 $J_3 = \text{alkyl or } C(O)J_2;$

$J_4 = \text{alkyl;}$

$J_5 = H, \text{alkyl or } C(O)J_6;$

$J_7 = H, \text{ or alkyl;}$

- $J_9 = \text{H, alkyl or } C(O)J_{10};$
 $J_{13} = \text{H, alkyl, or } C(O)J_{14};$
 $J_{15} = \text{H, alkyl, or } C(O)J_{16};$
 $J_{17} = \text{H, alkyl, or } C(O)J_{18};$
- 5 $J_{21} = \text{H, alkyl, } C(O)J_{22} \text{ or heterocyclic ring of 5 to 7 members;}$
 $T_1 = \text{H, alkyl, or arylalkyl;}$
 $T_2 = \text{H, alkyl, arylalkyl, or heterocycle of 5 to 7 members; or}$
 $T_1 \text{ and } T_2, \text{ when taken together, form a carbocyclic ring of 5 or 6 members, with or without unsaturation and with or without substitution; or}$
- 10 $Q_1(T_1)(T_2)$ is taken together to form a carbonyl, such that a cyclic carbonate is formed.
3. The method according to Claim 2, wherein:
- $X_1 = \text{O, NR, S;}$
15 $X_2 = \text{H, F, Cl, Br, I, CF}_3, \text{ alkyl, arylalkyl, aryl, arylalkenyl, arylalkynyl, or heterocycle of 5 to 7 members;}$
 $X_3 = \text{H;}$
 $R = \text{H, alkyl, cycloalkyl, arylalkyl, aryl;}$
 $R_4 = \text{H, alkyl, cycloalkyl, arylalkyl, aryl, or } C(O)R_5;$
- 20 R_5 is H, alkyl, cycloalkyl, arylalkyl, aryl or heterocyclic ring of 5 to 7 members;
 $E_1 \text{ and } E_2 \text{ are H;}$
 $Y_1 = \text{O;}$
 $Y_2 = \text{O;}$
 $M_1 \text{ and } M_2 \text{ are independently H, alkyl, cycloalkyl, arylalkyl, aryl, } C(O)M_3,;$
- 25 $M_3 = \text{alkyl, cycloalkyl, arylalkyl, or aryl;}$
 $A_1 = \text{H, alkyl, cycloalkyl, arylalkyl or aryl;}$
 $A_2 = \text{H, alkyl, cycloalkyl, arylalkyl, or aryl;}$
 $Z = \text{O, CH}_2, \text{CF}_2, \text{ or CCl}_2;$
 $G_1 = \text{O or S;}$
- 30 $G_2 = \text{CH;}$
 $G_3 = \text{CH}_2, \text{CH(OJ}_5) \text{ or CH(NJ}_6\text{J}_7);$
 $G_4 = \text{CH}_2, \text{CH(OJ}_9), \text{ or CH(NJ}_{11}\text{J}_{13});$
 $G_5 = \text{CH}_2, \text{CH(OJ}_{15}), \text{ or CH(NJ}_{16}\text{J}_{17});$

$G_6 = CH_2, CH(CH_3), CH(OJ_{19}), CH(CH_2OJ_{19}), CH(CH_2(NJ_{21}J_{23})),$ or $CH(CO_2J_{21}),$ with the provision that when $G_1 = O$ or $S,$ then G_6 does not equal $CH(OH);$ and the number of hydrogen atoms bonded to the G_1 - G_6 ring atoms is limited to a maximum of 8; also with the provision that the number of nitrogen atoms bonded to the G_1 - G_6 ring atoms in

5 Formula I is limited to a maximum of 2;

$J_6, J_{11},$ and J_{16} are independently H, alkyl, arylalkyl, or aryl;

$J_5 = H,$ alkyl or $C(O)J_6;$

$J_7 = H,$ or alkyl;

$J_9 = H,$ alkyl or $C(O)J_{10};$

10 $J_{13} = H,$ alkyl, or $C(O)J_{14};$

$J_{15} = H,$ alkyl, or $C(O)J_{16};$

$J_{17} = H,$ alkyl, or $C(O)J_{18};$

$J_{19} = H,$ alkyl, or $C(O)J_{20};$

$J_{21} = H,$ alkyl, or $C(O)J_{22};$ and

15 $J_{23} = H,$ alkyl, or $C(O)J_{24}.$

4. The method according to Claim 1, wherein said method further comprises the step of measuring the intraocular pressure of said subject before administering the composition.

20 5. The method according to Claim 1, further comprising the step of measuring the intraocular pressure of said subject after administering the composition.

6. The method according to Claim 1, wherein administering said pharmaceutical composition to said subject is to treat ocular hypertension.

25

7. The method according to Claim 6, wherein administering said pharmaceutical composition to said subject is to treat glaucoma.

8. The method according Claim 1, wherein said pharmaceutical composition is co-administered to said subject with other therapeutic agent or adjuvant therapy commonly used to reduce intraocular pressure.

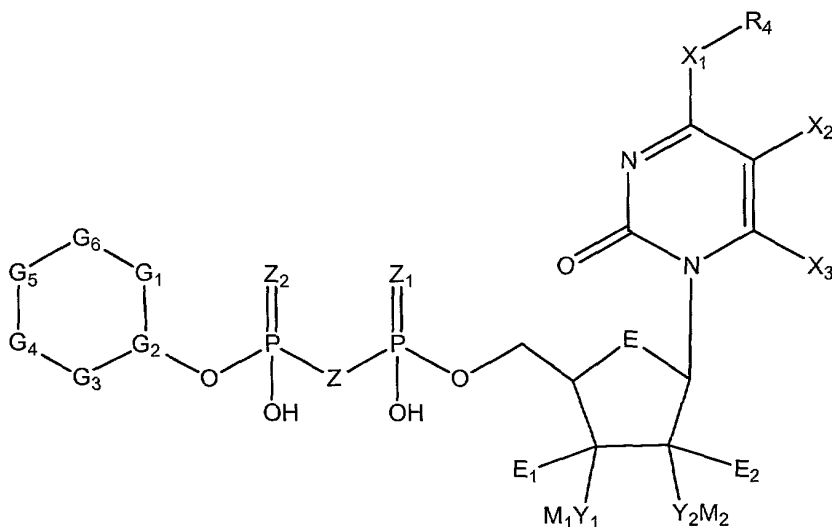
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9. The method according to Claim 1, wherein said pharmaceutical composition is administered topically to said subject.

10. The method according to Claim 1, wherein said pharmaceutical composition is administered via subconjunctival, subcleral, or intravitreal injection to said subject.

11. A compound according to Formula IA:

Formula IA



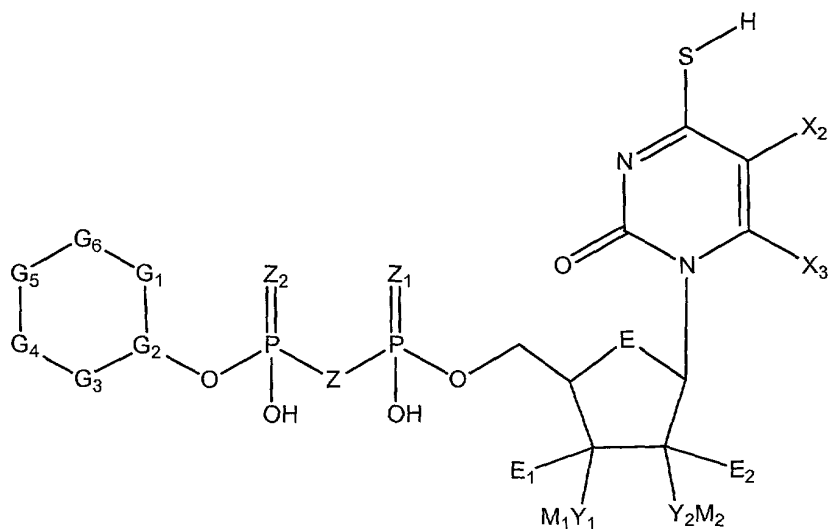
wherein:

R₄ = alkyl, cycloalkyl, arylalkyl, aryl, heterocyclic ring of 5 to 7 members, C(O)R₅, C(O)OR₆ or C(O)NR₅R₇;

15 X₁, X₂, X₃, R, R₁–R₃, R₅–R₃₅, E, E₁, E₂, Y₁, Y₂, M₁–M₅, A₁–A₃, Z, Z₁–Z₃, G₁–G₆, J₁–J₂₄, G₁–G₁₂, T₁–T₃ are the same as those described in Formula I in Claim 1.

12. A compound of Formula IB:

Formula IB



5 wherein:

$X_2, X_3, R, R_1-R_3, R_5-R_{35}, E, E_1, E_2, Y_1, Y_2, M_1-M_5, A_1-A_3, Z, Z_1-Z_3, G_1-G_6, J_1-J_{24}, G_1-G_{12},$

T_1-T_3 are the same as those described in Formula I in Claim 1;

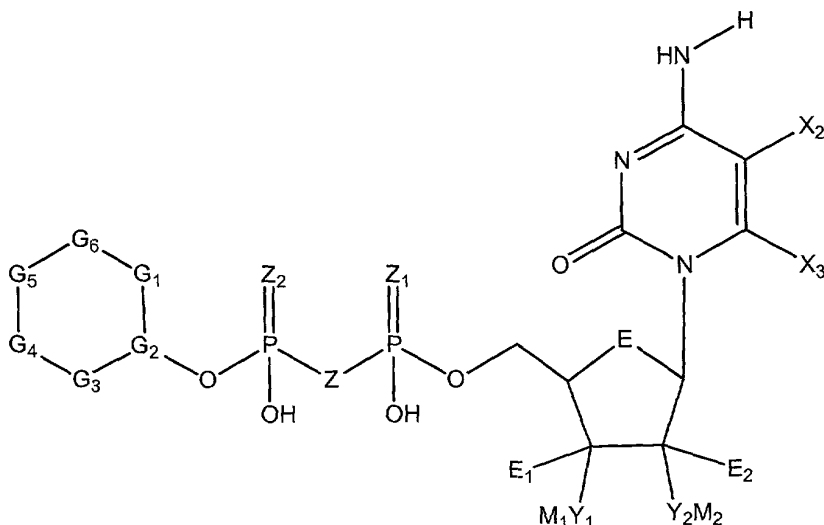
provided that when $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = G_1 = O, E_1 = E_2 = H,$

$G_2 = CH, G_3 = CH(OJ_5), G_4 = CH(OJ_9), G_5 = CH(OJ_{15})$ and $G_6 = CH(CH_2OJ_{19}),$ then at least

10 one of $X_2, X_3, M_1, M_2, J_5, J_9, J_{15},$ or J_{19} is not equal to H.

13. A compound of Formula IC:

Formula IC:



5

wherein

X_2 , X_3 , R , R_1 – R_3 , R_5 – R_{35} , E , E_1 , E_2 , Y_1 , Y_2 , M_1 – M_5 , A_1 – A_3 , Z , Z_1 – Z_3 , G_1 – G_6 , J_1 – J_{24} , G_1 – G_{12} , T_1 – T_3 are the same as those described in Formula I in Claim 1;

provided that when $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = O$, $G_1 = O$ or $CH(OH)$, $E_1 = E_2 = H$, $G_2 =$

10 CH , $G_3 = CH(OJ_5)$, $G_4 = CH(OJ_9)$, $G_5 = CH(OJ_{15})$ and $G_6 = CH(CH_2OJ_{19})$, then at least one of X_2 , X_3 , M_1 , M_2 , J_5 , J_9 , J_{15} , or J_{19} is not equal to H ;

further provided that when $X_2 = H$ or CH_2OH , $E = Y_1 = Z = Z_1 = Z_2 = G_1 = O$, $Y_2 =$ bond to M_2 from ring, $E_1 = E_2 = M_2 = H$, $G_2 = CH$, $G_3 = CH(OJ_5)$ and $G_4 = CH(OJ_9)$, $G_5 = CH(OJ_{15})$, $G_6 = CH(CH_2OJ_{19})$, then at least one of X_3 , M_1 , J_5 , J_9 , J_{15} , or J_{19} is not equal to H ;

15 further provided that when $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = G_1 = O$, $E_1 = E_2 = H$, $G_2 = CH$, $G_3 = CH(OJ_5)$, $G_4 = CH_2$, $G_5 = CH(OJ_{15})$, $G_6 = CH(CH_3)$, then at least one of X_2 , X_3 , M_1 , M_2 , J_5 , or J_{15} is not equal to H ;

further provided that when $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = G_1 = O$, $E_1 = E_2 = H$, $G_2 = CH$, $G_3 = CH_2$ or $CH(NH_2)$, $G_4 = CH(OJ_9)$, $G_5 = CH(OJ_{15})$, $G_6 = CH(CH_3)$, then at least one of X_2 , X_3 ,

20 M_1 , M_2 , J_9 , or J_{15} is not equal to H ;

further provided that when $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = G_1 = O$, $E_1 = E_2 = H$, $G_2 = CH$, $G_3 = CH(NH_2)$, $G_4 = CH(OJ_9)$, $G_5 = CH(OJ_{15})$, $G_6 = CH(CH_2(NH_2))$, then at least one of X_2 , X_3 , M_1 , M_2 , J_9 , or J_{15} is not equal to H;

further provided that when $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = G_1 = O$, $E_1 = E_2 = H$, $G_2 = CH$, $G_3 =$

5 $CH(OH)$, $G_4 = CH_2$, $G_6 = CH(CH_3)$, then G_5 is not equal to CHF;

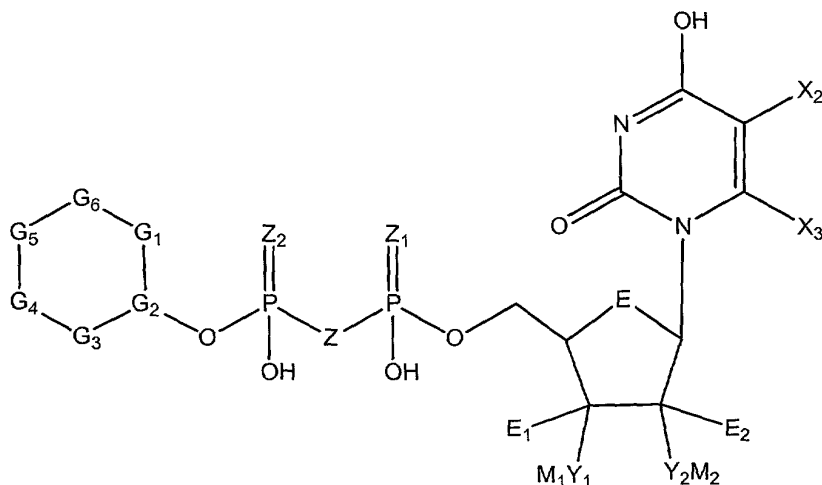
further provided that when $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = G_1 = O$, $E_1 = E_2 = X_2 = X_3 = M_1 = M_2 = H$, $G_2 = CH$, $G_3 = CH(OH)$, $G_4 = CH(OH)$, $G_5 = CH(OH)$, then G_6 is not $CH(CH_3)$ or $CH(CHF_2)$;

further provided that when $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = G_1 = O$, $E_1 = E_2 = H$, $G_2 = CH$, $G_3 =$

10 $CH(OH)$, $G_5 = CH(OH)$, $G_6 = CH(CH_2OH)$ then G_4 is not CHF.

14. A compound of Formula ID:

Formula ID



wherein:

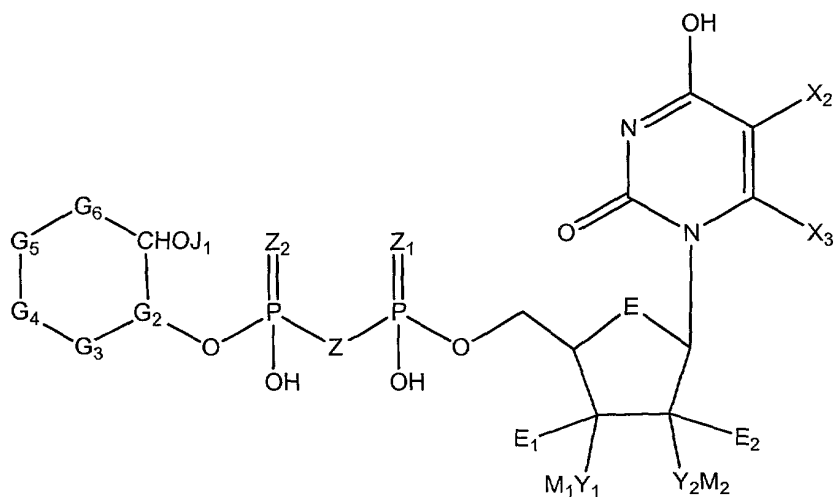
$X_3 = CN$, OR_{19} , SR_{19} , $NR_{23}R_{28}$, CF_3 , alkyl, cycloalkyl, $C(O)R_{32}$, $C(O)OR_{33}$, $C(O)NR_{34}R_{35}$,
 20 arylalkyl, aryl, arylalkenyl, arylalkynyl, or a heterocycle of 5 to 7 members;

X₂, X₃, E, E₁, E₂, Y₁, Y₂, M₁, M₂, Z, Z₁, Z₂, and G₁-G₆ are the same as those described in Formula I in Claim 1.

15. A compound of Formula IE:

5

Formula IE



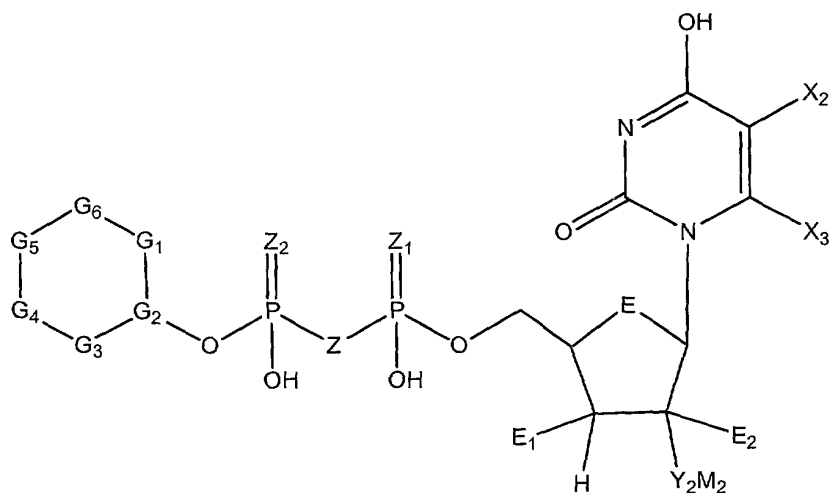
wherein:

X₂, X₃, E₁, E₂, Y₁, Y₂, M₁, M₂, Z, Z₁, Z₂, G₂-G₆ and J₁ are the same as those described in

10 Formula I in Claim 1.

16. A compound of Formula IF:

Formula IF



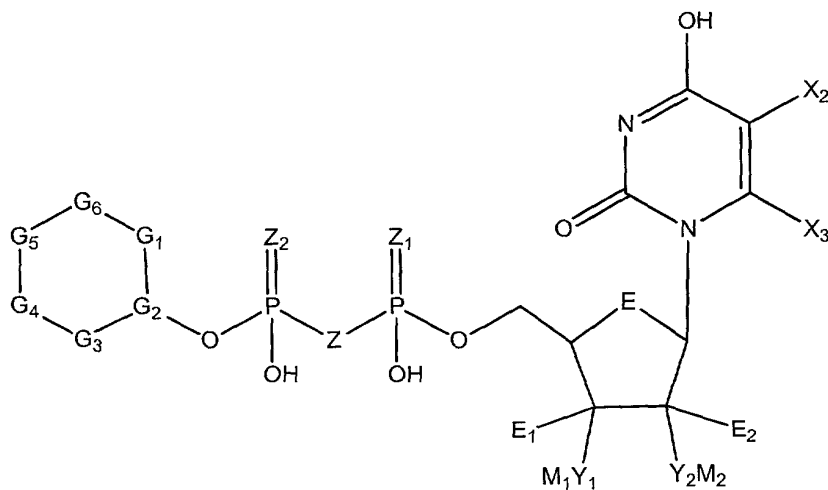
5 wherein:

$X_2, X_3, E_1, E_2, Y_2, M_2, Z, Z_1, Z_2, G_2-G_6$ are the same as those described in Formula I;

Provided that when $X_2 = CH_3, X_3 = E_1 = E_2 = M_2 = H, E = Y_2 = Z = Z_1 = Z_2 = G_1 = O, G_2 = CH, G_3 = G_4 = G_5 = CH(OH)$, then G_6 is not $CH(CH_3)$ or $CH(CH_3)$ or $CH(CH_2OH)$.

10

Formula IG



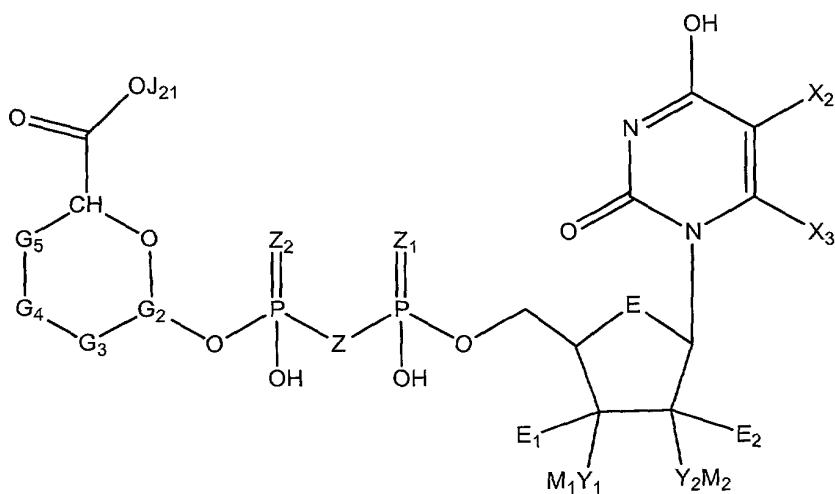
wherein:

X_2 is aryl, arylalkyl, arylalkenyl, arylalkynyl, C_2 - C_8 alkyl, C_2 - C_8 alkenyl, alkynyl, cycloalkyl, or C_3 - C_8 branched alkyl, and none of the alkyl groups in X_2 are substituted with an amine or an amide on the chain, or contain a nitrogen hetero atom;

X_3 , E_1 , E_2 , M_1 , M_2 , Y_1 , Y_2 , Z , Z_1 , Z_2 , G_1 - G_6 are the same as those described in Formula I in Claim 1.

17. A compound of Formula IH:

Formula IH

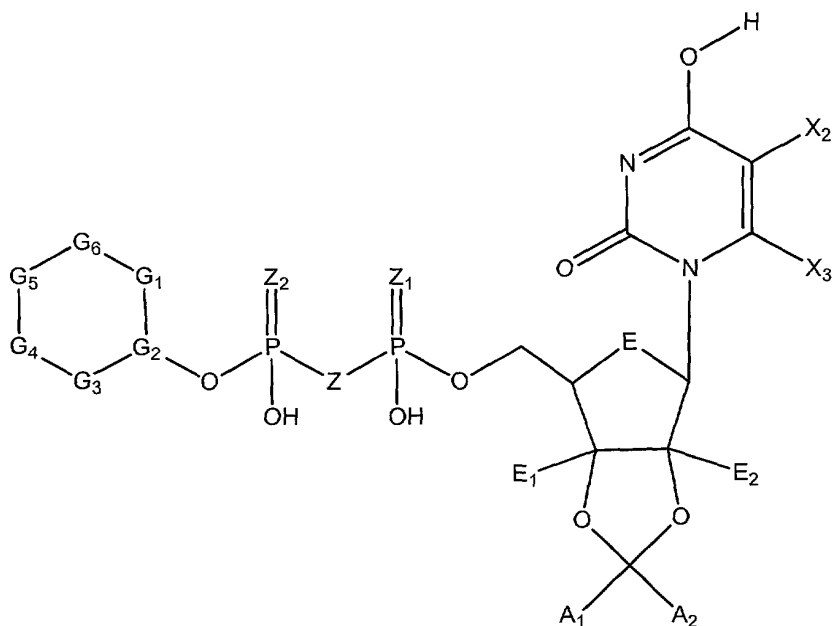


wherein:

- 15 X_2 , X_3 , E , E_1 , E_2 , M_1 , M_2 , Y_1 , Y_2 , Z , Z_1 , Z_2 , G_2 - G_5 and J_{21} are the same as those described in Formula I in Claim 1;
provided that when $X_2 = X_3 = E_1 = E_2 = M_1 = M_2 = H$, $E = Y_1 = Y_2 = Z = Z_1 = Z_2 = O$, $G_2 = CH$, $G_3 = G_4 = G_5 = CH(OH)$, then J_{21} is not H or CH_3 .

18 A compound of Formula II:

Formula II



5

wherein:

X_2 , X_3 , E, E_1 , E_2 , A_1 , A_2 , Z, Z_1 , Z_2 and G_2 - G_6 are the same as those described in Formula I in Claim 1;

provided that when $X_2 = X_3 = E_1 = E_2 = H$, and $E = Z_1 = Z_2 = G_1 = O$, and $A_1 = A_2 = CH_3$,

10 then Z is not equal to CH_2 or CF_2 ;

further provided that when $X_2 = X_3 = E_1 = E_2 = H$, and $E = Z = Z_1 = Z_2 = G_1 = O$, and A_1 and A_2 are taken together to form an unsaturated 6-membered ring, then G_6 is not $CH(CH_2OH)$.

15